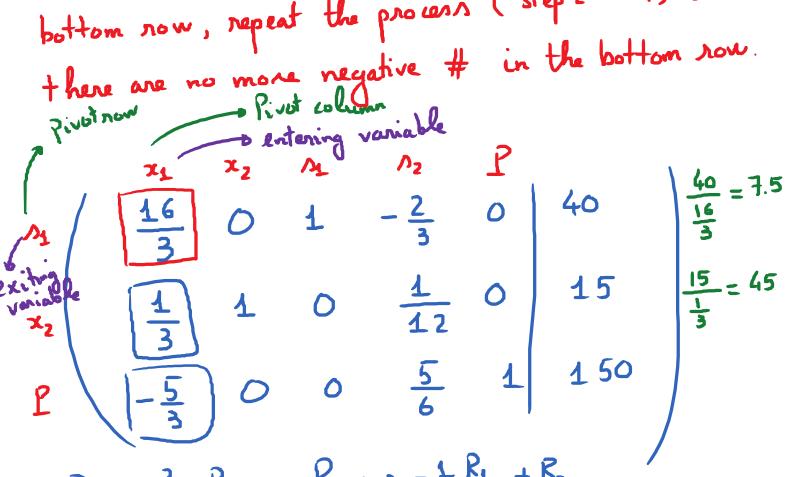
Step 5: If there are still regative number in the bottom now, repeat the process (Step 2 - 4) until



$$R_1 \longrightarrow \frac{3}{16} R_1$$
; $R_2 \longrightarrow -\frac{1}{3} R_1 + R_2$

$$R_3 \leftrightarrow \frac{5}{3}R_1 + R_3$$

$$x_1$$
 $\begin{pmatrix} 1 & 0 & \frac{3}{16} & -\frac{1}{8} & 0 & 7.5 \\ x_2 & 0 & 1 & -\frac{1}{16} & \frac{1}{8} & 0 & 12.5 \\ P & 0 & 0 & \frac{5}{2} & \frac{5}{2} & 1 & 162.5 \end{pmatrix}$

Step 6: Once we get no more negative in the bottom now, the rightmost column gives was the optimal solution.

 $x_1 = 7.5$; $x_2 = 12.5$, P = 162.5

HW8:
$$P = 7x_1 + 8x_2 + 10x_3$$

 $2x_1 + 3x_2 + 2x_3 \le 1000$
 $x_1 + x_2 + 2x_3 \le 800$
 $x_1, x_2, x_3 \ge 0$
 $2x_1 + 3x_2 + 2x_3 + A_1 = 1000$
 $2x_1 + x_2 + 2x_3 + A_1 = 800$
 $2x_1 + x_2 + 2x_3 + A_1 = 800$
 $2x_1 + x_2 + 2x_3 + A_2 = 800$
 $2x_1 + x_2 + 2x_3 + A_2 = 800$

